

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Previously Presented) The electric machine of claim 8 wherein each of the magnet slots comprises a portion having a shape complimentary to a shape of at least a portion of the magnet.
3. (Original) The electric machine of claim 2 wherein the portion of the magnet slot having the complimentary shape is elongated.
4. (Previously Presented) The electric machine of claim 8 wherein the at least one non-magnetic structure formed at a rotor core internal location proximate to an expected pole location of a magnet emplaced in the magnet slot comprises an end of the magnet slot abutting at least one non-magnetic region having a width in excess of a width of the magnet slot where at least a portion of the magnetic slot is substantially magnet-shaped.
5. (Original) The electric machine of claim 4 wherein the at least one non-magnetic region having a width in excess of a width of the magnet slot comprises a substantially bulbous region.
6. (Currently Amended) The electric machine of claim 5 wherein each of the magnet slots further comprises:

the portion of the rotor core that protrudes at least partially into the magnet slot is
~~at least one notch extending inwardly into the magnet slot and disposed between a substantially~~
linear portion of the magnet slot and the substantially bulbous region.

7. (Canceled)

8. (Currently Amended) An electric machine, comprising:

a stator; and

a rotor core mounted for rotation with respect to the stator, the rotor core comprising a number of a magnet slots and at least one non-magnetic structure, each of the number of the magnet slots segmented by a portion of the rotor core that protrudes at least partially into the magnet slot, the at least one non-magnetic structure is formed at a rotor core internal location proximate to an expected pole location of a magnet ~~emplaced-receivable~~ in the magnet slot;

a filler forming at least a part of the at least one non-magnetic structure, at least some of the filler located in the magnet slot, wherein the filler comprises at least one of an epoxy, a resin, or an adhesive.

9. (Previously Presented) The electric machine of claim 8, further comprising:

a number of permanent magnets, each of the permanent magnets disposed within a respective one of the magnet slots.

10. (Canceled)

11. (Currently Amended) The electric machine of claim 9, further comprising:

a number of non-magnetic wedges, each non-magnetic wedge disposed adjacent to a respective one of the permanent magnets to establish a movement-resistant friction fit between the permanent magnet and the rotor core about the magnet slot.

12-13. (Canceled)

14. (Previously Presented) The electric machine of claim 15 wherein the load absorbing material comprises a filler selected from the group consisting of an epoxy, a resin, or an adhesive.

15. (Currently Amended) An electric machine, comprising:

a stator;

a rotor mounted for rotation with respect to the stator, the rotor comprising a number of magnet slots, each slot comprising opposed end portions and a central portion disposed between the end portions, the central portion of each of the magnet slot slots shaped to complimentarily receive a magnet, the opposed end portions separated from the central portion by portions of the rotor that protrude at least partially into the slot;

a number of magnets complimentarily received in the central portions of the magnet slots of the rotor; and

a load absorbing material filling at least a portion of each of the end portions of the magnet slots.

16. (Previously Presented) The electric machine of claim 15, wherein the end portions of the magnet slots have a width greater than a width of the central portion of the magnet slots.

17. (Previously Presented) The electric machine of claim 15, wherein the end portions of the magnet slots are substantially bulbous-shaped.

18-25. (Canceled)

26. (Currently Amended) A rotor assembly of an electric machine, comprising:

a lamination layer configured to be axially stacked in a series of lamination layers to form a rotor core of an electric machine;

the lamination layer forming at least a part of at least one internal slot, each internal slot comprising an elongate portion and at least one expanded bulbous end portion disposed at one end of the elongate portion;

a portion of the lamination layer protruding at least partially into the internal slot between the elongate portion and the at least one expanded bulbous end portion;

a permanent magnet disposed within each internal slot and substantially, laterally restrained in the slot by the portion of the lamination layer; and

a load absorbing material received in the end portions of the internal slots between a portion of a wall forming the end portion and the respective permanent magnet disposed in the internal slot.

27. (Previously Presented) The rotor assembly of claim 26 wherein the load absorbing material is selected from the group consisting of epoxy, resin, or adhesive.

28. (New) The rotor assembly of claim 8 wherein at least one of the number of the magnet slots includes cavity formed at a first end of the magnet slot and where the cavity is separated from a remaining portion of the magnet slot by the portion of the rotor core that protrudes at least partially into the magnet slot.

29. (New) The rotor assembly of claim 28 wherein the cavity is a bulbous shaped cavity.

30. (New) The rotor assembly of claim 8 wherein the portion of the rotor core that protrudes at least partially into the magnet slot abuts a first end of the magnet that is located in the magnet slot.

31. (New) The rotor assembly of claim 8 wherein the portion of the rotor core that protrudes at least partially into the magnet slot comprises a notch.

32. (New) The rotor assembly of claim 15 wherein one of the respective magnets complementarily received in the central portion of one of the respective magnet slots of the rotor is laterally restrained by the portions of the rotor that protrude at least partially into the one of the respective magnet slots.

33. (New) The rotor assembly of claim 15 wherein the portions of the rotor that protrude at least partially into the slot comprise notches.

34. (New) The rotor assembly of claim 26 wherein a portion of the lamination layer protruding at least partially into the internal slot between the elongate portion and the at least one expanded bulbous end portion comprises a notch.

35. (New) An electric machine, comprising:

a stator; and

a rotor core extending in a longitudinal direction and in a radial direction, the rotor core mounted for rotation about a longitudinal axis with respect to the stator, the rotor core comprising a number of a magnet slots and at least one non-magnetic structure formed at a rotor core internal location proximate to an expected pole location of a magnet received in one of the magnet slots, wherein the magnet slots are arranged in the rotor core to be substantially perpendicular the radial direction; and

a filler forming at least a part of the at least one non-magnetic structure, at least some of the filler located in the magnet slot, wherein the filler comprises at least one of an epoxy, a resin, or an adhesive.

36. (New) The electric machine of claim 35 wherein at least one of the magnet slots is each segmented by a portion of the rotor core that protrudes at least partially into the magnet slot.

37. (New) The electric machine of claim 35 wherein at least one of the number of the magnet slots includes a cavity formed at a first end of the magnet slot.

38. (New) The electric machine of claim 37 wherein the cavity is a bulbous shaped cavity.